

**SAMPLE BOD BENCHSHEET**

Sample Location	Type	Date	Sample Time	Date in: 12/2/04	Date out: 12/7/04
Influent	24-hr Comp	12/2/04	6:55 AM	Time in: 8:05 AM	Time out: 8:10 AM
Effluent	24-hr Comp	12/2/04	6:30 AM	Incubator Temp: 21	Incubator Temp: 20

Sample ID	Bottle ID	Sample mLs	CBOD	Seed, mLs	pH	Cl2	Temp	DO, initial	DO, final	Difference	Seed Correction	BOD (mg/L)	Average BOD	Reported BOD, mg/L	Comment
Blank	1						19.8	8.9	8.8	0.1		0.1			OK
												Depletion /mL			
Seed Control	10	5						8.9	6.7	2.2		0.44			
Seed Control	11	10						8.9	5.5	3.4		0.34			
Seed Control	12	12						8.8	4.3	4.5		0.38			
												Average:	0.39		
LCS (GGA)	23	6		2				8.9	3.3	5.6	0.8	239.5		240	Qualify LCS
Influent 12-2-04	A	3		2	7.2	No	19.8	8.8	6.8	2.0		200.0	203.0	203	
Influent 12-2-04	BC	5		2	7.2	No	19.8	8.8	5.2	3.6		216.0			
Influent 12-2-04	D	7		2	7.2	No	19.8	8.9	4.4	4.5		192.9			
Effluent 12-2-04	E	200		2	7.3	No	21.5	8.8	6.8	2.0		3.0	2.6	3	
Effluent 12-2-04	GG	250		2	7.3	No	21.5	8.8	6.6	2.2		2.6			
Effluent 12-2-04	H	300		2	7.3	No	21.5	8.8	6.5	2.3		2.3			

**DO Meter Calibration:**

Test Start Date: 12/2/04 Time: 7:15 AM Analyst: Joe Q. Public

Meter Calibration

Technique

<input checked="" type="checkbox"/> Water-Saturated Air
DW Temp (°C): 19.8
Pressure (mm Hg): 740
DO Calibration: 8.86

<input type="checkbox"/> Air-Saturated Water
DW Temp (°C):
Pressure (mm Hg):
DO Calibration:

<input type="checkbox"/> Winkler Titration
mL Titrant:
DO Calibration:

Test End Date: 12/7/04 Time: 8:00 AM Analyst: Joe Q. Public

Meter Calibration

Technique

<input checked="" type="checkbox"/> Water-Saturated Air
DW Temp (°C): 20.2
Pressure (mm Hg): 720
DO Calibration: 8.81

<input type="checkbox"/> Air-Saturated Water
DW Temp (°C):
Pressure (mm Hg):
DO Calibration:

<input type="checkbox"/> Winkler Titration
mL Titrant:
DO Calibration:

**Comments:** GGA result, 240 mg/L, exceeds upper limit of 228.5 mg/L. Laboratory will use new GGA for LCS next week.

## SAMPLE AMMONIA BENCHSHEET

**Example 1:** Laboratory uses ISE meter in direct read mode, verifies slope with toggled meter function

### Meter Calibration

Analysis Date: 12/02/2004

Standard	Volume, mL	[NH3], mg/L
STD 1	100	0.20
STD 2	100	2.00
STD 3	100	20.00

Slope: -58.3

### Routine Analysis- Direct Read

Sample	Sample, mL	Dilution Factor	NH3, mg/L	QC %	Comment
Method Blank	100	1	0.01		
LCS, 1 mg/L	100	1	0.98	98%	
SAMPLE 1	100	1	5.60		
SAMPLE 2	100	1	0.12		
Closing CCV, 1 mg/L	100	1	1.02		

CCV is from same stock as calibration standards, LCS is from second source; laboratory not required to analyze QCS.

**Example 2:** Laboratory can only capture mV readings with meter, calculates results with computer.

### Meter Calibration- mV transformation

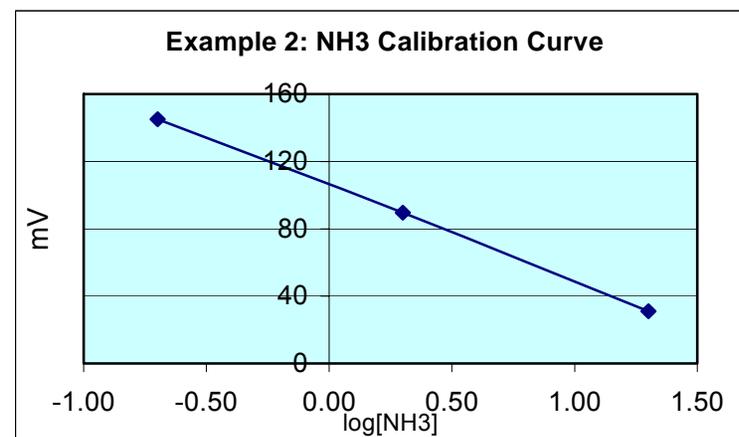
Analysis Date 12/02/2004

Standard	Volume, mL	[NH3], mg/L	log [NH3]	mV		
STD 1	100	0.20	-0.70	145.1	Slope:	-57.05
STD 2	100	2.00	0.30	89.5	Intercept	105.71
STD 3	100	20.00	1.30	31		

### Routine Analysis- mV transformation

Sample	Sample Volume, mL	Dilution Factor	mV	log <sup>-1</sup> [NH3]	Ammonia, mg/L	QC %	Comment
Method Blank	100	1	212	-1.86	0.01		
LCS, 1 mg/L		1	104	0.03	1.07	107%	
Sample 1	100	1	100	0.10	1.25		
Sample 2	100	1	226	-2.11	0.01		
Closing CCV, 1 mg/L	100	1	105	0.01	1.03	103%	

CCV is from same stock as calibration standards, LCS is from second source; laboratory not required to analyze QCS. Method does not require spikes or replicates

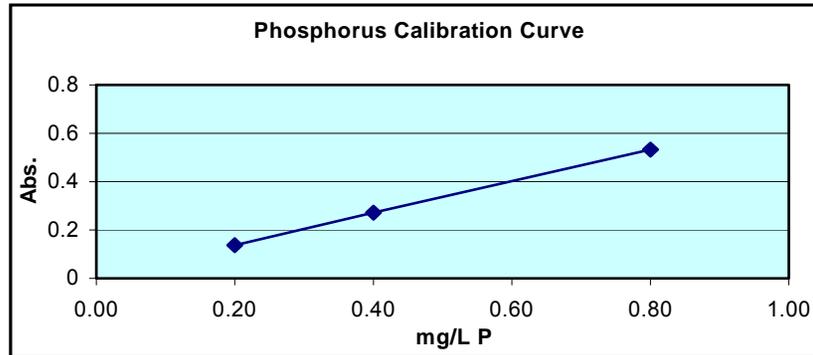


## SAMPLE TOTAL PHOSPHORUS BENCHSHEET

**Initial Calibration**

Created 6/25/04  
Expires 6/25/05

Sample	Phosphorus, mg/L	Absorbance
STD 1	0.20	0.137
STD 2	0.40	0.271
STD 3	0.80	0.533



m= 1.516  
b= -0.009  
r= 1.000

This is one week's samples, using the calibration curve generated 6/25/04 for quantitation.

**Routine Analysis**

Analysis Date 7/2/04

Sample	Sample (mLs)	Final Vol, (mLs)	Dilution Factor	Absorbance	Phosphorus, mg/L	% Recovery
Method Blank	50	50	1	0.001	-0.01	
CCV, 0.5 mg/L	50	50	1	0.319	0.47	94.0%
LCS, 0.6 mg/L	50	50	1	0.419	0.63	105.0%
Sample 1	5	50	10	0.485	7.27	
Sample 2	50	50	1	0.111	0.16	
Sample 3	5	50	10	0.369	5.51	
Sample 4	50	50	1	0.222	0.33	
Sample 5	5	50	10	0.345	5.14	
Sample 6	50	50	1	0.199	0.29	
Closing CCV, 0.5	50	50	1	0.298	0.469	93.8%

The CCV is from the same source as calibration standards and is read twice, at the beginning and end; LCS is from second source.

Because laboratory uses second source for LCS, it is exempt from QCS.

The method does not require the analysis of spikes or replicates.